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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,377	12/12/2003	Joel R. Weiss	S01.12-1009/STL 11567	9761
27365 7590 12/04/2007 SEAGATE TECHNOLOGY LLC C/O WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402-3319			EXAMINER CAO, ALLEN T	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 12/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/734,377

Applicant(s)

WEISS ET AL.

Examiner

Allen T. Cao

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 13-23, 29 and 33-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 24-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Oumi et al (US. 6,473,384 B1).

Oumi et al discloses a suspension assembly having a suspension, a slider and a suspension interface that provides substantial freedom of rotation of the slider about a yaw axis relative to the suspension (column 1, lines 45-65).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-12, 24-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohira et al (US. 6,628,480) in view of Oumi et al (US. 6,473,384 B1).

Note especially figures 1, 2, and 15. KOHIRA et al shows an assembly with a suspension (20) which includes a gimbal (22) mounting a slider (1) having a vertical stabilizer (12) located at the trailing end, the vertical stabilizer includes two opposing sweepback surfaces (not numbered). The aerodynamic surface of the slider further includes longitudinal fins (7,8).

Kohira et al does not clearly disclose that a slider and a suspension interface that provides "substantial freedom of rotation of the slider about a yaw axis" relative to the suspension.

Oumi et al discloses a suspension assembly having a suspension, a slider and a suspension interface that provides substantial freedom of rotation of the slider about a yaw axis relative to the suspension (column 1, lines 45-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to indicate/modify the suspension assembly of Kohira et al such that the slider and the suspension that provides substantial freedom of rotation of the slider about a yaw axis relative to the suspension as taught by Oumi et al to improve the movement characteristics of the head slider with respect to the suspension and the interfaced medium in order to improve the read/write quality characteristics of the head slider.

Regarding claims 2-12, 25, 26, and 28, KOHIRA et al shows a slider and suspension substantially as claimed.

KOHIRA et al differs in not specifying any details of: (A) the gimbal (re claims 2 and 28), or (B) the head (re claims 25 and 26).

Concerning (A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize any known gimbal. The motivation is as follows: one of ordinary skill in the art would use any known gimbal were no specific structure was disclosed. Note that Applicant acknowledges that known gimbals provide

for some rotation of the slider (see page 6 lines 18-20 of the specification). These claims do not define the amount of movement involved.

Concerning (B), it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize an MR read head in KOHIRA et al. The motivation is as follows: KOHIRA et al simply does not specify what type of head is used. One of ordinary skill in the art would utilize any known head where none was specified. Note that Applicant acknowledges that MR heads are known and commonly used in this environment.

5. Applicant's arguments with respect to claims 1-12, 24-28 and 30-32 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Allen Cao
Primary Examiner

AC
November 28, 2007